



Patent  
TH1808 (US)

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Richard F. Lemuth  
Richard F. Lemuth

Date: January 26, 2007

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of )

JOHN ROBERT LOCKEMEYER ET AL )

Serial No. 10/606,440 )

Filed June 26, 2003 )

A METHOD FOR IMPROVING THE  
SELECTIVITY OF A CATALYST AND  
A PROCESS FOR THE EPOXIDATION  
OF AN OLEFIN )

Group Art Unit: 1755

Examiner:

January 26, 2007

MAIL STOP Appeal Brief- Patents  
COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**REPLY TO NOTICE OF NON-COMPLIANT APPEAL BRIEF**

This is a reply to a Notice of Non-Compliant Appeal Brief (37 C.F.R. 41.37), dated December 27, 2006, relative to the application identified above. A replacement section for the Summary of Claimed Subject Matter is respectfully submitted.

**Summary of Claimed Subject Matter:**

There is one independent claim on appeal, claim 1. The present invention provides a method which heat-treats a highly selective epoxidation catalyst in the presence of oxygen to improve its selectivity.

Claim 1 begins with a limitation to a supported highly selective epoxidation catalyst comprising silver in a quantity of at most 0.17 g per m<sup>2</sup> surface area of the support for which basis may be found in the application text, as filed, at page 8, lines 10-16.

Limitation 2 of claim 1 further defines the highly selective epoxidation catalyst as further comprising one or more selectivity enhancing dopants selected from rhenium, molybdenum, and tungsten, which is supported in the application text, as filed, at page 7, lines 28-31.

Limitation 3 of claim 1 provides a step for contacting the catalyst, or a precursor of the catalyst comprising silver in cationic form (application text, as filed, at page 9, lines 24 – page 10, line 3), under certain conditions specified in limitations 4, 5 and 6, below.

Limitation 4 of claim 1 requires a feed comprising oxygen during the contacting step and is supported in the application text, as filed, at page 11, lines 17-28.

Limitation 5 of claim 1 requires a catalyst temperature above 250 °C during the contacting step and is supported in the application text, as filed, at page 11, lines 7-14.

Limitation 6 of claim 1 requires a duration of at least 0.5 hours and up to 150 hours for the contacting step and is supported in the application text, as filed, at page 2, lines 23-33 and page 11, lines 14-17.

Limitation 7 of claim 1 provides an additional step for subsequently decreasing the catalyst temperature to a value of at most 250 °C, which is supported in the application text, as filed, at page 13, lines 1-3.

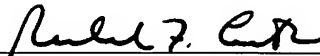
Appl. No. 10/606,440  
Amdt. Dated Jan. 26, 2007  
Reply to Notification of Non-Compliant  
Appeal Brief of Dec. 27, 2006

### CONCLUSION

The Commissioner is hereby authorized to charge any fees associated with the filing of this reply to Shell Oil Company, Deposit Account No. 19-1800. If the Examiner would like to discuss this case with Applicants attorney, the Examiner is invited to contact Richard Lemuth at the phone number below.

Respectfully submitted,

JOHN ROBERT LOCKEMEYER ET AL

By   
Their Attorney, Richard F. Lemuth  
Registration No. 30,081  
(713) 241-3716

P. O. Box 2463  
Houston, Texas 77252-2463